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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,361	09/11/2003	Hooman Honary	P16342	5503

7590 05/22/2006

Buckley, Maschoff, Talwalkar & Allison LLC
Attorney for Intel Corporation
Five Elm Street
New Canaan, CT 06840

EXAMINER

RIZK, SAMIR WADIE

ART UNIT PAPER NUMBER

2133

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/660,361	Applicant(s) HONARY ET AL.	
	Examiner Sam Rizk	Art Unit 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

FINAL DETAILED ACTIONS

- Amended claims 1-23 have been submitted for examination
- Amended claims 1-23 have been rejected

Drawings

1. In view of the amended drawings filed on 3/13/2006 all objections to the drawings have been withdrawn.

Claim Rejections - 35 USC § 112

2. In view of the amended claims 4 and 14 filed on 3/13/2006 rejection of claims 4 and 14 has been withdrawn.

Response to Amendment

3. Applicant's arguments see page 11 filed on 3/13/2006 have been fully considered but they are not persuasive.

The applicant main point of argument as stated on page 11 filed on 3/13/2006 copied below:

"To reiterate a main point of applicants' argument, the Scheuermann reference is completely silent as to turbo decoding".

is not persuasive. The Examiner directs the applicant to two sections in Scheuermann that teach concatenated and convolutional coding that are general forms of Turbo coding.

- a. background of the invention section, lines (24-31) in Scheuermann:

For example, in terms of the channel coding operations that are necessary, existing and emerging wireless standards utilize myriad error mitigation

techniques to operate in a hostile channel environment. Existing standards utilize two levels of coding plus block interleaving to address both single error and burst error phenomena. Group codes are used for the outer codes, and convolutional codes are used for the inner codes of the various concatenated coding schemes. No two standards employ the same combination. Additionally, certain standards employ encryption to offer a degree of privacy and security.

b. summary of the invention, lines (55-67) in Scheuermann:

Aspects of a reconfigurable system for providing channel coding in a wireless communication device are described. The aspects include a plurality of computation elements for performing channel coding operations and memory for storing programs to direct each of the plurality of computation elements. A controller controls the plurality of computation elements and stored programs to achieve channel coding operations in accordance with a plurality of wireless communication standards. The plurality of computation elements include a data reordering element, a linear feedback shift register (LFSR) element, a convolutional encoder element, and a Viterbi decoder element.

4. Turbo coding consists of two key design components: parallel concatenated encoding and iterative decoding, see book by Wicker et al. Turbo coding published by Kluwer Academic Publishers, 1999, page 7, lines (9-15). Copy is provided.
5. It is the Examiner's conclusion that independent claims 1,11 and 21 are not patentably distinct or non-obvious over the prior arts of record namely, Scheuermann. Therefore, the rejection is maintained. Based on their dependency on claim 1,11 and 21, claims 2-10,12-20 and 22-23 stand rejected.

Conclusion

6. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571)-272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571)272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

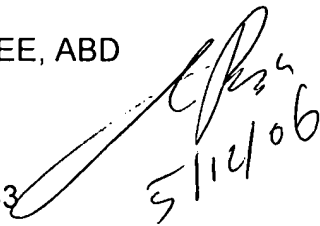
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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam Rizk, MSEE, ABD

Examiner

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Handwritten signature of Sam Rizk and the date 5/14/06.Handwritten signature of Guy Lamarre.

**GUY LAMARRE
PRIMARY EXAMINER**